

**REMARKS/ARGUMENTS****35 USC §112**

The Office rejected **claims 1 and 3-18, and 20** under 35 USC 112, second paragraph as being indefinite on various grounds.

More particularly, the examiner noted that the phrase "sub-ripe, primarily red or almost ripe" would be open to more than one interpretation. The applicant deleted the term "sub-ripe" in claims 1 and 15 to even more clearly point out that the coffee cherry is characterized as being primarily red or almost ripe (which are specific stages of a sub-ripe coffee cherry).

The office also noted that claims 1 and 15 would have unclear antecedent basis due to the phrase "wherein the whole *Coffea spec.* (coffee) cherry used for the composition". The applicant amended claims 1 and 15 as suggested by the examiner.

With respect to claim 5, the examiner pointed to the phrase "such that" and noted that it would be unclear if the elements after the objected phrase would form part of the claimed invention. The applicant amended claim 5 by replacing the objected phrase with a functional limitation (MPEP 2173.05(g)). Support for the amendment is found on page 4, line 16-19.

The examiner also noted that the scope of claim 7 would be indefinite as it would be unclear whether the extract would form an additional component or would negate the elements of claim 1. The applicant amended claim 7 to more clearly point out that the extract is an additional ingredient to the cosmetic composition of claim 1. Support for the amendment is found on page 3, line 9-12, and page 5, line 22-25.

With respect to claims 6 and 15, the examiner noted that the limitation "*Coffea spec.* (coffee) cherry preparation" would lack proper antecedent basis. The applicant amended claim 6 by deleting the term "preparation" and specifying that the aqueous extract and/or alcoholic extract is comprised in the composition prepared from the whole *Coffea spec.* (coffee) cherry, which has proper antecedent basis in claim 1 (spanning lines 1 and 2). The applicant could not find the objected limitation in claim 15.

The examiner still further noted that the metes and bounds of claims 8 and 9 would be uncertain as the percentage was not expressed with specific reference. The applicant amended claim 8 to specify that the percentage by weight is with respect to the extract, and amended claim 9 to specify that the percentage by weight is with respect to the cosmetic composition. Support for the amendment is found on page 6, line 6-9.

### **Claim Objections**

The Office objected to **claim 3** as being improperly dependent on a canceled claim. The applicant amended claim 3 to depend on claim 1.

The Office also objected to **claims 8, 10, and 11** for various informalities. The applicant amended the objected claims as suggested by the examiner.

### **35 USC §103**

The Office rejected **claims 1, 4-7, and 12-14** as being obvious over Bertrand et al. (Plant Science, 2001) in view of Lintner (WO 99/63963). The applicant respectfully disagrees, especially in view of the following arguments and amendments herein:

(a) As is well known, to establish prima facie obviousness of a claimed invention, *all the claim limitations* must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

As amended herein, claim 1 expressly requires among other elements a "... composition prepared from a whole *Coffea spec.* (coffee) cherry...[that is a]...*dried Coffea spec.* (coffee) cherry..." In the office action, the examiner stated that Bertrand would teach freeze-dried whole coffee cherries, and deemed freeze-drying to be the same process as quick-drying. Upon closer review of the cited passage (page 1356, Material and Methods), the applicant notes that while Bertrand does indeed teach harvest of coffee cherries in various stages of ripeness, Bertrand fails to teach freeze-drying of the coffee cherries. Specifically, Bertrand teaches that:

"...all samples were *frozen in liquid nitrogen* immediately after collecting and *then stored at -80 °C until CGA extraction...*" (page 1356, right column, lines 5-7; emphasis added); and

"...Each *sample was crushed in a grinder...* and about 50 mg of *powder was extracted* in a 50 ml falcon tube with 50 ml of 0.5% sodium bisulfite in a methanol water (70/30; v/v) solution... (page 1356, right column, lines 10-14; emphasis added)

Clearly, there is ***no teaching or suggestion of a drying process*** in the Bertrand reference. In further support of the applicant's position, it is noted that Bertrand makes specific reference to the extraction process (page 1356, right column, line 10; Ky et al., Reference [13]) that provides further details on the protocol. As can be taken from the attached copy of the Ky reference and Bertrand, the *frozen material is immediately crushed in a mill that has been previously frozen to minimize any degradation* (page 786, right column, section with subtitle 'Extraction Procedure'). Bertrand then employs Method 4 of Ky (page 787, section with subtitle 'Method 4') as can be taken from the description in Bertrand (page 1356, right column, last full paragraph, and page 1357, left column, lines 1-4). As is readily apparent, fresh material is analyzed in both Ky and Bertrand.

(b) It is well established that "...teachings of references can be combined only if there is ***some suggestion or incentive*** to do so..." (see *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988), and that the need for specificity pervades this authority. Indeed, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed (see e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). Even post-KSR, in formulating a rejection under 35 U.S.C. 5 103(a) based upon a combination of prior art elements, it ***remains necessary to identify the reason*** why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed (*In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998); and USPTO KSR Memo by Margaret A. Focarino, Deputy Commissioner for Patent Operations).

More particularly, and with respect to the scope and content of the prior art it is noted that Lintner expressly teaches use of ***green coffee beans*** (e.g., page 2, line 28 to page 3, line 1) in combination with ***shea butter*** in the formulation of a cosmetic or dermatopharmaceutical

composition, finding that the addition of shea butter reinforces the advantages of the coffee bean extract (page 7, lines 6-7). Lintner is devoid of any teaching of coffee cherries, let alone of cherries as presently claimed. Bertrand reports on the *analysis of chlorogenic acid content* in the fruit and leaves of *Coffea pseudozanguebariae*, finding that the total CGA content in the fruit dramatically decreases with maturity of the fruit (page 1358, Table 1, line CGA). Bertrand is not concerned with use of coffee cherries in any context other than the analysis of total CGA and specific subspecies of CGA.

Consequently, the differences between Lintner/Bertrand and the presently pending claims are many and substantial. First, none of the references teaches dried coffee cherries. Second, where coffee components are used in a cosmetic formulation, the coffee components are derived from the green beans and not a dried fruit. Third, where chlorogenic acids are discussed, it is either in the context of phytobiochemical analysis between fruit and leaves of a plant, or in the context of green coffee bean extract that is used in a cosmetic formulation. Still further, there is absolutely no reference to any mycotoxin content in either Bertrand or Lintner.

With respect to the office's arguments regarding the combination of the cited art it should be noted that neither Bertrand nor Lintner include any express suggestion or motivation for their combination. Indeed, both cited references are in entirely different fields of endeavor (cosmetic formulations, and plant biochemistry) and therefore do not readily lend themselves to a combination.

Still further, the office appeared to argue that a person of ordinary skill in the art would have been motivated to combine the references as (1) "...Lintner taught that chlorogenic acid from coffee was useful in the making of a cosmetic composition and..." (2) "...Bertrand taught that the concentration of chlorogenic acids increase during maturation of a coffee cherry..." (page 8 of office action). However, it should be noted that the examiner's reasoning seems incorrect with respect to the concentration of chlorogenic acids for various reasons. First, the applicant points out that *Bertrand expressly teaches in the abstract that the CGA content of Coffea pseudozanguebariae is low*. As such, it should be evident that Bertand teaches that coffee cherries are not a desirable source of CGA. Consequently, the Bertrand teaches away from the presently claimed subject matter.

Moreover, the applicant points to Table 1 on page 1358 in which is readily apparent that the *CGA content drastically decreases with progression of fruit maturity*. Table 1 lists CQA, diCQA, CGAs.s, and FQA, which are subspecies of CGA (see page 1355, Introduction). Thus, Bertrand teaches away from the use of primarily red or almost ripe coffee cherries as presently claimed.

Consequently, it should be seen from the above that the references not only fail to teach each and every element, but also that the references and knowledge in the art fail to provide a motivation to combine the cited art in a manner as proposed by the office. Therefore, in light of the amendments and arguments, the rejection should be withdrawn.

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The Office also rejected **claims 15-18 and 20** as being obvious over Bertrand and Lintner as applied above in further view of The Free Dictionary by Farlex.

With respect to the combination of Bertrand and Lintner, the same deficiencies and arguments as provided above apply and are not reiterated here. The Free Dictionary by Farlex fails to remedy these defects. Consequently, claims 15-18 and 20 should not be deemed obvious over the cited art and the rejection should be withdrawn in light of the above arguments and amendments.

**Request For Allowance**

Claims 1, 3-18, and 20 are pending in this application. The applicant requests allowance of all pending claims.

Respectfully submitted,  
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Date: September 9, 2009

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